

**AMENDMENTS**

**In the claims:**

Please amend the claims as follows:

1. (Currently Amended) A tunable power amplifier, comprising:
  - at least one input matching circuit receiving an RF signal from an RF input and creating a first output RF signal, said at least one input matching circuit including at least one voltage tunable dielectric varactor to enable center frequency tuning;
  - a first amplifier receiving said first output RF signal from said at least one input matching circuit and creating a second output signal, said second output signal providing input for at least one inter-stage matching circuit, said at least one inter-stage matching circuit creating a third output signal;
  - a second amplifier receiving said third output signal and creating a fourth output signal;
  - an output matching circuit receiving said fourth output signal and generating an RF output signal; and
  - a embedded controller associated with said input matching circuit, inter-stage matching circuit and output matching circuit, for frequency tuning control.
2. (Original) The tunable power amplifier of claim 1, further comprising at least one additional inter-stage matching circuit.

3. (Original) The tunable power amplifier of claim 1, wherein said at least one inter-stage matching circuit includes at least one tunable varactor to enable center frequency tuning.

4. (Original) The tunable power amplifier of claim 1, wherein said at least one output matching circuit includes at least one tunable varactor to enable center frequency tuning.

5. (Original) The tunable power amplifier of claim 2, wherein said at least one additional inter-stage matching circuits is one additional inter-stage matching circuit.

6. (Original) The tunable power amplifier of claim 2, wherein said at least one additional inter-stage matching circuit is two additional inter-stage matching circuits.

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Currently Amended) A method of tuning a power amplifier, comprising the steps of:

providing at least one input matching circuit receiving an RF signal from an RF input and creating a first output RF signal, said at least one input matching circuit including at least one voltage tunable dielectric varactor to enable center frequency tuning;

providing a first amplifier receiving said first output RF signal from said at least one input matching circuit and creating a second output signal, said second output signal providing input for at least one inter-stage matching circuit, said at least one inter-stage matching circuit creating a third output signal;

providing a second amplifier receiving said third output signal and creating a fourth output signal;

providing an output matching circuit receiving said fourth output signal and generating an RF output signal; and

adjusting the frequency tuning with an embedded controller associated with said input matching circuit, inter-stage matching circuit and output matching circuit.

17. (Original) The method claim 16, further providing at least one additional inter-stage matching circuit.

18. (Original) The method claim 16, further providing at least one inter-stage matching circuit which includes at least one tunable varactor to enable center frequency tuning.

19. (Original) The method claim 16, further providing at least one output matching circuit which includes at least one tunable varactor to enable center frequency tuning.

20. (Original) The method claim 19, wherein the step of further providing at least one additional inter-stage matching circuit is one additional inter-stage matching circuit.

21. (Original) The method claim 19, wherein the step of further providing at least one additional inter-stage matching circuit is two additional inter-stage matching circuits.

22. (Canceled)